

The works of Brett Nortje part 40

Chemistry and physics basics.

In life, there are things like chemistry where we observe or learn the way that things mix, and physics where we learn about force.

In chemistry, there are a lot of elements that make up the world. These are the biggest things out of the two. We do not learn about atoms, but rather how atoms make up the world on the surface. In physics, we learn about atoms and how the atoms are made, so, chemistry is like big physics, but they both are very small.

So, if we were to learn about either, we will learn the things that make them up. In chemistry, there are dozens of elements, and in physics there are about a dozen only. This makes you think physics is easier, right? Well, they say that physics is far harder to learn than chemistry, and, chemists tend to be more common than physicists. Basically, you need to understand materials in physics and chemistry to become an engineer, so listen carefully to your teacher when they talk about either of them.

The best things to concentrate on in chemistry is water, coffee, and other things you use a lot, as, a practical examination about something that matters will include these things. Water is H_2O so will be used a lot. You need to learn there is an H and two O's in water, so, if you had it any other way, you would not have water, unless it was diluted or mixed with something. If it were mud, for example, it would be silicon and about the same amount of oxygen mixed in there, so mud, taking away the hydrogen, would be Si_4O , yes?

Science is the name for both of these things to be grouped under. If you want to build inventions one day, this is the one for you. It comes with maths though, but, maths is easy as we can see.

If you were to want to mix things to make things, you would typically be making fuels for power stimulation, or medicine for plants, animals and, of course, humans.

If you want to make fuel, the things you need to consider is that they burn easily. Gold would make a very bad fuel, but oxygen is essential to fires, and that is why it is used in so many of the fuels. Fuels are usually found at the top of the periodic table as far as I can tell.

Medicine is basically all the things that are natural in the world. For a good treatment, you need something that has carbon, oxygen and hydrogen in it, as these are essential fuels for the body to recuperate and nitrogen is a poison that is used to kill off

old cells, as it is not carbon based, and, is not a good fuel, but is plentiful in the body. things you will look for as medical things are mixtures of the elements, like penicillin. usually these mixtures will be dealt with at the top of the periodic table, so, it is essential to learn these things with bias.

If you were to mix things, there are two kinds of ways they mix - the first is electron bonds for solids, and the second is orbital mixing for elements in chemistry. both of these use electrons, as, we know electrons suck things together.

In chemistry, we get electrons that bond because some of them are the opposites of others, like men attract women, or opposites attract, yes? this is because some orbitals are s orbitals, and some are other types. all of the orbitals are 'clouds' of electrons. electrons suck anything, so will stick together. this is because they are bound to quarks which give fuel to them, so they stick around, floating around the outside sucking things closer to them. this is because bigger things attract smaller things, like with gravity.

So, if we take a solid, what keeps it together? before you say orbitals - which it is - we must ask why? why do orbitals keep things together? the first thing we will notice is that in the big world, similar things are attracted to one another, like water running together in a delta, or earth elements drawing things down to them - if you were to throw a piece of metal in the air, it will fall to the earth, yes? this is gravity, which is a force from our earth and sun that attracts things.

When things get hot, they go up, when they get cold, they come down. this is because of orbitals being excited by the heat, and the photons in the air will start to move around, all over the place in fact. this is backed up by the colder cooled down non excited orbitals coming to earth because their photons are not excited by the electrons orbital clouds anymore. this makes sense as hot air balloons and steam, yes?

But, what about kites? they go up because they meet resistance, and, are earth meeting air. this repels each other, as they are opposite elements, and, then the kite can only go up, as it is getting excited itself! it is getting excited because there is 'resistance' and that makes heat, warming the kite, making it go up.

If you were to observe elements and why they are held together, it is because they have opposing orbital charges or forces and they therefore attract each other, as, we know, that opposites attract, yes?

The electrons will be the suction - like a plunger? - holding it together as they have negative spins and charges. if they had positive ones, they could move around and repel each other. so, why do metals separate and need to be nailed together to hold? this is because they are made of the same stuff, and, having a total positive charge will repel each other. this is not true for magnets though, except if they were made of the same stuff, but, if we remove the charge by adding positively charged things to negatively charged things - one third negative, two thirds positive, plus, one third negative? - they will sit completely neutrally; i wonder what that would do?

Anyways, what holds particles together is force. this is like electrons and photons and stuff and they are all charged. when you have a lot of lions in nature, you get one male that is surrounded by many females - think of it as one nucleus surrounded by many electrons and quarks? - and then they are all drawn, pushed and pulled together through like 'credit' being attracted to 'debts' in accounting - they cannot be listed into a functioning business without there being credit for long, can they?

So, if you were to have a lot of particles, you would have either chemical or physical bonds. these will see the atom being

attracted to some atoms, and repelled by others. think of how water collects in a delta, or, how planets repel each other in our solar system - we all all going into the sun, but, there is a force of repulsion that keeps them apart. it is electromagnetic, and, comes from the charge of the planets, like a orbital is pushing away from another orbital of the same charge type.



Originally Posted by <http://en.wikipedia.org/wiki/Atom>

Though the word atom originally denoted a particle that cannot be cut into smaller particles, in modern scientific usage the atom is composed of various *subatomic particles*. The constituent particles of an atom are the *electron*, the *proton* and the *neutron*; all three are *fermions*. However, the *hydrogen-1* atom has no neutrons and the *hydron ion* has no electrons. The electron is by far the least massive of these particles at 9.11×10^{-31} kg, with a negative *electrical charge* and a size that is too small to be measured using available techniques.^[32] It is the lightest particle with a positive rest mass measured. Under ordinary conditions, electrons are bound to the positively charged nucleus by the attraction created from opposite electric charges. If an atom has more or fewer electrons than its atomic number, then it becomes respectively negatively or positively charged as a whole; a charged atom is called an *ion*. Electrons have been known since the late 19th century, mostly thanks to *J.J. Thomson*; see *history of subatomic physics* for details.

Protons have a positive charge and a mass 1,836 times that of the electron, at 1.6726×10^{-27} kg. The number of protons in an atom is called its *atomic number*. *Ernest Rutherford* (1919) observed that nitrogen under alpha-particle bombardment ejects what appeared to be hydrogen nuclei. By 1920 he had accepted that the hydrogen nucleus is a distinct particle within the atom and named it *proton*.

Neutrons have no electrical charge and have a free mass of 1,839 times the mass of the electron,^[33] or 1.6929×10^{-27} kg, the heaviest of the three constituent particles, but it can be reduced by the *nuclear binding energy*. Neutrons and protons (collectively known as *nucleons*) have comparable dimensions—on the order of 2.5×10^{-15} m—although the 'surface' of these particles is not sharply defined.^[34] The neutron was discovered in 1932 by the English physicist *James Chadwick*.

In the *Standard Model* of physics, electrons are truly elementary particles with no internal structure. However, both protons and neutrons are composite particles composed of elementary particles called *quarks*. There are two types of quarks in atoms, each having a fractional electric charge. Protons are composed of two *up quarks* (each with charge $+\frac{2}{3}$) and one *down quark* (with a charge of $-\frac{1}{3}$). Neutrons consist of one up quark and two down quarks. This distinction accounts for the difference in mass and charge between the two particles. [35][36]

The quarks are held together by the *strong interaction* (or strong force), which is mediated by *gluons*. The protons and neutrons, in turn, are held to each other in the nucleus by the *nuclear force*, which is a residuum of the strong force that has somewhat different range-properties (see the article on the nuclear force for more). The gluon is a member of the family of *gauge bosons*, which are elementary particles that mediate physical forces. [35][36]

So, the gluons are what holds the atoms together, and, they will look like little 'sticks' or branches.

This means, of course, that the strong force and the weak force that holds things together, are all 'parts of electrons.' this electron thing is where energy comes from, so, will be making up the gluons and the strong and weak force too.

But, how do we see the difference between the strong and weak force? well, the less positively charged the force is, the easier it will succumb or 'give in' to the attraction, making it stronger or weaker as if it were reversed - big things have a weak force of attraction because they resist more, like an arm wrestle, yes?

Atomic radius. [empirical]



Originally Posted

by [http://en.wikipedia.org/wiki/Atomic_radii_of_the_elements_\(data_page\)](http://en.wikipedia.org/wiki/Atomic_radii_of_the_elements_(data_page))

The **atomic radius** of a *chemical element* is a measure of the size of its atoms, usually the mean or typical

distance from the *nucleus* to the boundary of the surrounding cloud of *electrons*. Since the boundary is not a well-defined physical entity, there are various non-equivalent definitions of atomic radius. Depending on the definition, the term may apply only to isolated atoms, or also to atoms in *condensed matter*, *covalently bound* in *molecules*, or in *ionized* and *excited states*; and its value may be obtained through experimental measurements, or computed from theoretical models. Under some definitions, the value of the radius may depend on the atom's state and context.^[1] Atomic radii vary in a predictable and explicable manner across the *periodic table*. For instance, the radii generally decrease along each period (row) of the table, from the *alkali metals* to the *noble gases*; and increase down each group (column). The radius increases sharply between the noble gas at the end of each period and the alkali metal at the beginning of the next period. These trends of the atomic radii (and of various other chemical and physical properties of the elements) can be explained by the *electron shell* theory of the atom; they provided important evidence for the development and confirmation of *quantum theory*.

To find the radii [radiuses] you need to find the number of orbitals they have, and then, since the orbitals give it mass and identity as to which element it is, as you can find the element by knowing the orbitals types and diversity or amounts.

So, to find the radii, once again, you need to take the form of the matter and multiply the orbitals by 25 for a gas, 53 for a liquid, and 30 for a metal, or maybe i have the values incorrect, yet there must be a pattern.

To find how many orbitals the atom has, you need to find the formula of the ancients, where they go up slowly then branch out into other areas, then advance all together until they reach eighteen, or my own formula where you take the atomic number, minus one, to the power of the atomic number.

Boiling points.

To find the boiling point formula is hard, there doesn't seem to be one, as, there is little structure on the table i am looking. so, where will we find a formula for boiling points?

I suppose we could take the mass of the material and find that the denser it is, the more heat is required to make it 'melt' or boil. what makes things denser but orbitals and type of matter?

So, depending on type of material, being solid liquid or gas, you divide those orbitals by the by half the orbital number, at the orbital number, or twice the orbital number, but i am not sure of the 'values,' really. i am sure that using the orbitals as powers, then dividing them, you will find the right boiling point.

Finding allocations of orbitals for elements.

Basically, the more orbitals a material has, the denser and heavier it is. it goes like this; hydrogen has one s orbital, helium has two s orbitals, lithium has two s orbitals and one p orbital, so, you take the atomic number of the element, and you can work it out if you have the atomic number. at some point, usually eighteen or thirty six, the orbitals stop adding and then they are just seen adding up on other types of orbitals.

So, if you have an atomic number of [x], then you have to use it like 'powers' to find the right amount of orbitals, bearing in mind some stop 'leveling up' at certain points, but not at other points. simply find out how much by using the power system [s1, s2, s2 p1, s3 p2...] and then cut off the excess over the limit of how many they can be.

What are orbitals and what do they do?

Orbitals are electron clouds, or, bunches of electrons that 'float' around the atom. they basically will make things bond to it, or push away from them. they also 'get eaten' by protons, the difference is said to be the difference between a basket ball and a pinhead. these protons will have the electrons travel right through them, and i suppose they go in opposite directions. actually, one of them must go clockwise and the other anti clock wise, and, i am told, the electrons go clockwise.

In nature the earth goes anti clockwise around the sun, so, this must be the 'closing the gap,' yes? to do the opposite would be what electrons do, going clockwise [i hear] and the proton, on a collision course with them, goes anti clockwise. this means, of course, that electrons are using their negative charge to create energy, and protons are keeping the energy from spiraling out of control. this means that the protons must have a positive charge, as, they are attracted to the electrons.

Molecular cell biology.

This is where the cells of living organisms are studied and analyzed. if we were to think of what a cell does, it is a combination of various elements or atoms. this means, of course, that cells are like little

things called oxygen or lithium or zinc. when these things come together, they make a cell and there may be a complicated formula for finding what is in each cell. cells make up genes, among other things.

So, if you want to know what is in a cell, or what you get when you mix atoms, you need to look at the formula for it. in biology, the most common cells are made up of carbon, oxygen, hydrogen and nitrogen. you must learn everything you can about these to become a doctor or chemist!

If you were to be given a formula of CHO_4 , you would see that there is one carbon atom, one hydrogen atom and four oxygen atoms. this is easy so far, right? i mean, i don't know what the hell it is, but we know what it is made of!

Now, if you look at some carbon dioxide, it is spelled CO_2 , so it has one carbon and two oxygens. any time there is a O in it, it changes to oxide, as then it is an air 'thing.' there are a few other air things that also make it oxide, like N [nitrogen], H [hydrogen], O [oxygen] or anything else that ends with "en" or "ne," okay? then it is called a 'oxide' at the end.

If you are to take a liquid, then they would have one of those en or ne types of things in them. the rest are metals.

So, if you were to observe that atoms need to come together to form cells, and atoms by themselves will not affect anything like our world, we would have to say that cells are the building blocks of life.

If you were to want to know what the formula means - what cell is represented by the 'code' - then you would have to observe that no metals can ever be part of any cell of fluids or gases, and no gases could be part of any fluid cell, as then the cells would be mixed up.

So, if you were to have some idea of what the cell is, you could definitely answer that it is a remembered word that features all of the elements in it. so, NHO could be nitrogen + hydrogen + oxygen, making it an oxide, of course, so it would be 'nitrogenhydrogenoxide.' if you answer that, they will definitely give you the marks.

Engineering basics.

These threads i make are usually for kids to learn what they want to do with their lives, so i simplify them a little - if anyone wants to correct me feel free.

Engineering started a long time ago in ancient Egypt, the near east and Europe with people wanting to use something else to do something. as it turns out, the first engineering was actually a ox dragging a plough, with the oxen being the engine and the plough being the mechanism. the goal was to make lines in the sand and then plant seeds into them. the first civil engineering was building houses out of thatch, or doors for caves with sticks. the engine here was the person and the mechanism was the sticks, and the goal was to block the entrance.

So, as we now know, engineering is trying to get a device to do something for us to make our lives easier. a car takes us from place to place, and a elevator takes us up levels of the building.

Now, when we try to do things, we often think of ways to make it easier. like, for example, the things i have mentioned are used by people to make their lives easier, and they have a goal. whenever someone is faced by a problem over and over again, like an accountant working with numbers, they would use an abacus at first, then eventually a calculator. this is also a feat of engineering.

If we need something done, engineering is the way to go to do it with mechanisms, heat and electricity. the methods we learn at university are the ways it has been suggested we do them by the experts - people that have built things before.

How

Okay, so we know the ways engineering affects our lives, but, what are the methods used? what will we learn in university? what can we expect?

Basically, if you want to get into engineering, it is best to go to a technical school. they call themselves this, and, they specialize in maths and science, because you need to work out angles and stress levels, and, a little bit about materials used.

So, if you want to learn how to make things to help people, and maybe make a lot of money, then maybe a technical school is for you? you will maybe find it hard, but it is worth it if you ask me. i know in my country South Africa, there are no tradesmen or at least there is a shortage of them. i am talking about like specialized things where you need to get your hands full of grease and stuff, like usually fixing the machines or installing them. if you like robots, this is for you!

Now, to get the best out of your robots, you will need to understand that they will only do what they are supposed to do, or they will be off or 'broken.' maybe, if you are lucky, you will see that the machines will actually help in some other way, or make progress in some way towards making them better. that is what i do all day, and it is fun.

How does heat affect he machines?

Now, we need to learn how heat affects the machines. remember that electricity is also a bit of heat also, okay?

So, you get your goal first, then your methods for the goal, then the engine. let's say we want to make a diving board that will shine lights if you are too big or small for it? this would mean making a scale,

that is either going to zero with the light on, has the light off at zero and off when it is in the right 'areas,' or over the weight limit and the light goes on before the fatty or huge person stands on it and might break it before they get to the overhang.

Now, to do this, we need a scale, which has already been invented, and a light and a diving board. you could say that the scale weighs the person or object on it, as you could place a sack of potatoes on it, and then you attach a light to it that goes on when the weights are too much or too little.

To get the scale to work, first we need to observe how scales work. they will have a clock type of thing attached to them, that moves as if it were a tap when pressure is applied. you could do this by making a 'mechanism' that turns from side to side when the weight is placed on it, by, using two types of 'wheels,' that turn when the thing comes down, and turns the other one at an angle when it moves, like your hand moving clockwise to open a tap, then the tap turning clockwise inside to let the water out. you will learn this in plumbing too!

To get the light on, you need devices that go on like binary when the 'wheels' are too high or low.

Easier trigonometry, take two!

Previously, on other forums, i have found a way to simplify trigonometry, which is one of the things you will be using in your studies and applications.

Basically, you get angles. you need to measure angles to show where the it might break are and how it fits together. you can usually do this by learning your angles on a compass and a piece of plastic with numbers on it for the "degrees." then, you find out what the ratios are for the stresses, by using your know how of materials along with maths stuff to find the breaking points, or, melting points. remember your mechanism will melt if it is too hot, but it can get very hot and still not melt. it will get hot from the energy inside of it, okay?

So, this is about finding how things fit together. if you were to find the difference in degree holding the degree half circle thing level with the lines on your page. then, you need to place [a] point with your pen, and find the degrees from point [a] to point [b]. if they are too much, and you will know when your teacher tells you, then it won't work, okay?

What materials should be prepared for our mechanism and engines?

With the materials we will use to make the machine, we need something light and cheap in every case. if you were to build a car engine, you would try to use something like zinc, because it is a conductor, it is cheap and it has a high threshold for heat. actually, for a top notch engine you would use that stuff they make tin foil out of, as, it does not conduct any heat, yet still functions.

High tech maths!

I was wandering around the wikipedia today, and all of a sudden, a thing called analysis caught my eye. naturally, i wanted to investigate.

The foundations of this are to find the identity of indiscernibles, *the symmetry and triangle inequality. to find these values, you need to show that $d[xy]$ equals or is greater than zero. so, this finds positive numbers.*

Now, to find the indiscernables, you need to find that $x = 0$ and $d = 0$ and if that is true, y equals zero. this is indiscernibles, which means all the negative angles will add up to zero, or, be reduced from their negative places to zero.

Then, you need to observe that $[x] = [y]$, or, that swapping $[x]$ with y will equal the same thing.

Then, you need to observe that $[z]$ and $[x]$ are greater than $[y]$.

But, this is not simple enough, so we need to simplify it further, yes?

If you were to observe that $[z]$ and $[x]$ are greater than $[y]$, and, that multiplying $[x]$ by $[y]$ will yield the same number, no matter which way round you multiply them, then you will also see that $[y] = 0$ and that $[x]$ must equal a positive number that needs to equal zero, so, $[x]$ is the opposite to $[z]$, as if minus 5.3 and 5.3.

Geometry of 'curves.'

When it comes to this, it can be painful to measure. if you do not have the necessary equipment, you can use ruler to find the angles.

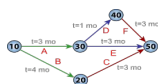
All you have to do is extend the lines along the lines, and then see how many degrees they are. this will make it easier in the end, i promise!

So, you take your right angle on the page you have, naturally drawn there, then you find the amount of numbers to find the right angle, half that for a acute right angle, and find the ratio where it becomes forty five degrees. then, you count how many units it is for a right angle of the curved line, naturally, and then you know the ratio. then, you take the ratio and divide logically.

Now, when you have to find the meeting points of two or three curved lines, you can just measure!

Critical path method.

This is said to be a sub field of mathematics. i have borrowed an example from wikipedia for my illustration of this type of maths.





Originally Posted

by http://en.wikipedia.org/wiki/Critical_path_method

The essential technique for using CPM [6][7] is to construct a model of the project that includes the following:

1. A list of all activities required to complete the project (typically categorized within a *work breakdown structure*),
2. The time (duration) that each activity will take to complete,
3. The *dependencies* between the activities and,
4. Logical end points such as milestones or deliverable items.

Like said in the picture.

Now, if you were to observe that certain activities should take preference, the chart should start in the center and work around in a circle, like a spiral. this will make it easier to connect things, yes? then you can make emergency plans where you adjust the placement of the little spheres and then make them reorganize themselves like a touch screen graph of today.

Differential equations.



Originally Posted

by http://en.wikipedia.org/wiki/Differential_equation

A **differential equation** is a *mathematicalequation* that relates some *function* with its *derivatives*. In applications, the functions usually represent physical quantities, the derivatives represent their rates of change, and the equation defines a relationship between the two. Because such relations are extremely common, differential equations play a prominent role in many disciplines including *engineering, physics, economics, and biology*. In *pure mathematics*, differential equations are studied from several different perspectives, mostly concerned with their solutions—the set of functions that

satisfy the equation. Only the simplest differential equations are solvable by explicit formulas; however, some properties of solutions of a given differential equation may be determined without finding their exact form.

If a self-contained formula for the solution is not available, the solution may be numerically approximated using computers. The theory of *dynamical systems* puts emphasis on qualitative analysis of systems described by differential equations, while many *numerical methods* have been developed to determine solutions with a given degree of accuracy.

So, you find the equation is usually a lot of powers and symbols with a lot of quadratic equations, yes? this would be simplest solve by flipping them around as we are taught with quadratic equations, and, then rubbing out the power numbers we find similar. this simplifies it, yes?

Then, it is algebra! this can be solved by applying numbers for the symbols and using a scientific calculator, of course.

Quadratic equations made easier.

This is where you have about four sums separated into two or more sections with division lines splitting them into a total of at least four sums. to work this out easier, you need to multiply the things that are divided, then switch them to negative numbers, then add them as if they were coming to be positive numbers.

Logarithms.

In *mathematics*, the **logarithm** of a *number* is the *exponent* to which another fixed value, the *base*, must be raised to produce that number. For example, the logarithm of 1000 to base 10 is 3, because 10 to the power 3 is 1000: $1000 = 10 \times 10 \times 10 = 10^3$. More generally, for any two *real numbers* b and x where b is

positive and $b \neq 1$, $y = b^x \Leftrightarrow x = \log_b(y)$ For example: $4^3 = 64 \Leftrightarrow 3 = \log_4(64)$. The logarithm to base 10 ($b = 10$) is called the *common logarithm* and has many applications in science and engineering. The *natural*

logarithm has the *irrational (transcendental) number e* (≈ 2.718) as its base; its use is widespread in *mathematics*, especially *calculus*. The *binary logarithm* uses base 2 ($b = 2$) and is prominent in *computer science*.

Logarithms were introduced by *John Napier* in the early 17th century as a means to simplify calculations. They were rapidly adopted by navigators, scientists, engineers, and others to perform computations more easily, using *slide rules* and *logarithm tables*. Tedious multi-digit multiplication steps can be replaced by table look-ups and simpler addition because of the fact—important in its own right—that the logarithm of a *product* is the *sum* of the logarithms of the factors:

$$\log_b(xy) = \log_b(x) + \log_b(y)$$

provided that b , x and y are all positive and $b \neq 1$.

The present-day notion of logarithms comes from *Leonhard Euler*, who connected them to the *exponential function* in the 18th century.

Logarithmic scales reduce wide-ranging quantities to smaller scopes. For example, the *decibel* is a *unit quantifying* signal power log-ratios and amplitude log-ratios (of which *sound pressure* is a common example). In chemistry, *pH* is a logarithmic measure for the *acidity* of an *aqueous solution*. Logarithms are commonplace in scientific *formulae*, and in measurements of the *complexity of algorithms* and of geometric objects called *fractals*. They describe *musical intervals*, appear in formulae counting *prime numbers*, inform some models in *psychophysics*, and can aid in *forensic accounting*.

In the same way as the logarithm reverses *exponentiation*, the *complex logarithm* is the *inverse function* of the exponential function applied to *complex numbers*. The *discrete logarithm* is another variant; it has uses in *public-key cryptography*.

To find the values here, you need to find the values of everything else that you can, then you divide them by themselves - reverse of square - and then you have the total of the logarithm.

Parabola.



Originally Posted by <http://en.wikipedia.org/wiki/Parabola>

A **parabola** ([/pəˈræbələ/](#); plural parabolas or parabolae, adjective parabolic, from [Greek](#): παραβολή) is a two-dimensional, [mirror-symmetrical curve](#), which is approximately U-shaped when oriented as shown in the diagram below, but which can be in any orientation in its [plane](#). It fits any of several superficially different [mathematical](#) descriptions which can all be proved to define curves of exactly the same [shape](#). One description of a parabola involves a [point](#) (the [focus](#)) and a [line](#) (the [directrix](#)). The focus does not lie on the directrix. The parabola is the [locus of points](#) in that plane that are [equidistant](#) from both the directrix and the focus. Another description of a parabola is as a [conic section](#), created from the intersection of a right circular [conical surface](#) and a [plane](#) which is [parallel](#) to another plane which is [tangential](#) to the conical surface.^[a] A third description is [algebraic](#). A parabola is a [graph](#) of

a [quadratic function](#), such as $y = x^2$.

The line perpendicular to the directrix and passing through the focus (that is, the line that splits the parabola through the middle) is called the "[axis of symmetry](#)". The point on the axis of symmetry that intersects the parabola is called the "[vertex](#)", and it is the point where the [curvature](#) is greatest. The distance between the vertex and the focus, measured along the axis of symmetry, is the "focal length". The "latus rectum" is the chord of the parabola which is parallel to the directrix and passes through the focus. Parabolas can open up, down, left, right, or in some other arbitrary direction. Any parabola can be repositioned and rescaled to fit exactly on any other parabola — that is, all parabolas are geometrically [similar](#).

Parabolas have the property that, if they are made of material that [reflects light](#), then light which enters a parabola travelling parallel to its axis of symmetry is reflected to its focus, regardless of where on the parabola the reflection occurs. Conversely, light that originates from a point source at the focus is reflected into a parallel

("collimated") beam, leaving the parabola parallel to the axis of symmetry. The same effects occur with sound and other forms of energy. This reflective property is the basis of many practical uses of parabolas.

The parabola has many important applications, from a parabolic antenna or parabolic microphone to automobile headlight reflectors to the design of ballistic missiles. They are frequently used in physics, engineering, and many other areas.

Strictly, the adjective parabolic should be applied only to things that are shaped as a parabola, which is a two-dimensional shape. However, as shown in the last paragraph, the same adjective is commonly used for three-dimensional objects, such as parabolic reflectors, which are really paraboloids. Sometimes, the noun parabola is also used to refer to these objects. Though not perfectly correct, this usage is generally understood.



This is like a bit of area and radius from geometry. basically, you can find the values you need by making a bigger circle inside the 'cone' by doubling the cone so that it comes out both sides. so, instead of having one cone, you have two cones, one joined at the end of the other, like a triangle within a triangle, or like two matches joined on the wooden side to become a double flint ended match, yes?

This will make the whole working out of the parabola much easier, as, you will be dealing with radius inside the cones.

Finding the degrees inside the circle will be made easier if you were to reverse the circles so that there is two 'circles' instead of just one, and, then finding the degrees of the 'vertical' circle by finding a few points close to the 'cone.'

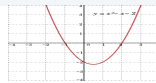
Quadratic functions.



Originally Posted by http://en.wikipedia.org/wiki/Quadratic_function

In *mathematics*, a **quadratic function**, a **quadratic polynomial**, a **polynomial of degree 2**, or simply a **quadratic**, is a *polynomial function* in one or more variables in which the highest-degree term is of the second degree. For example, a quadratic function in three variables x , y , and z contains exclusively

terms x^2 , y^2 , z^2 , xy , xz , yz , x , y , z , and a constant: $ax^2 + by^2 + cz^2 + dxy + exz + fyz + gx + hy + iz + j$ with at least one of the *coefficients* a , b , c , d , e , or f of the second-degree terms being non-zero.



$$x^2 - x - 2$$

A univariate (single-variable) quadratic function has the form^[1]

$f(x) = ax^2 + bx + c$, $a \neq 0$, in the single variable x . The *graph* of a univariate quadratic function is a *parabola* whose axis of symmetry is parallel to the y -axis, as shown at right.

If the quadratic function is set equal to zero, then the result is a *quadratic equation*. The solutions to the univariate equation are called the *roots* of the univariate function.

The bivariate case in terms of variables x and y has the form

$f(x, y) = ax^2 + by^2 + cx + dy + e$ with at least one of a , b , c not equal to zero, and an equation setting this function equal to zero gives rise to a *conic section* (a *circle* or other *ellipse*, a *parabola*, or a *hyperbola*).

In general there can be an arbitrarily large number of variables, in which case the resulting *surface* is called a *quadric*, but the highest degree term must be of degree 2, such as x^2 , xy , yz , etc.

This can be made easier by adding everything together, so, it would be, for example; $ax^2 + by^2 + cxy + dx + ey + f$ it would be just adding them up into one symbol or entry with numbers in front of and after the symbols, yes?

Periodic points of complex quadratic mappings.



Originally Posted

by http://en.wikipedia.org/wiki/Periodic_points_of_complex_quadratic_mappings

*This article describes **periodic points** of some **complex quadratic maps**. A **map** is a formula for computing a value of a variable based on its own previous value or values; a **quadratic map** is one that involves the previous value raised to the powers one and two; and a **complex map** is one in which the variable is a **complex number**. A **periodic point** of a map is a value of the variable that occurs repeatedly after intervals of a fixed length.*

*This theory is applied in relation with the theories of **Fatou** and **Julia sets**.*

So;

$$f_c(z) = z^2 + c$$

Is the equation first equation listed on Wikipedia. if there is a something times $[z] = [z] + \text{something else}$, obviously the added thing is equal to the first 'values' besides the $[z]$, so, we leave $[z]$ out of it, and find that the things before the $[z] =$ the things added to the $[z]$ on the other side of the equals.

Now, f_c equals $[z]$ times $[z] + c$, so, $z + c = f_c = [z]$.

So, if the f_c plus $+ c = 2z$, $[z] = [f]$ and $c = 1$.

Electronics advances.

I have previously been involved in a lot of electronics advances, and this is similar to I.T. if you have a degree in this, while i am a layman. that doesn't stop me though!

Today i want to talk about about semiconductor in the solid state vacuum tube.



Originally Posted by http://en.wikipedia.org/wiki/Integrated_circuit

*The **semiconductors** of the **periodic table** of the **chemical elements** were identified as the most likely materials for*

a *solid-state vacuum tube*. Starting with *copper oxide*, proceeding to *germanium*, then *silicon*, the materials were systematically studied in the 1940s and 1950s.

Today, *monocrystalline silicon* is the main *substrate* used for ICs although some III-V compounds of the periodic table such as *gallium arsenide* are used for specialized applications like *LEDs*, *lasers*, *solar cells* and the highest-speed integrated circuits. It took decades to perfect methods of creating *crystals* without defects in the *crystalline structure* of the semiconducting material. *Semiconductor* ICs are fabricated in a layer process which includes three key process steps – *imaging*, *deposition* and *etching*. The main process steps are supplemented by *doping* and *cleaning*.

Mono-crystal silicon wafers (or for special applications, *silicon on sapphire* or *gallium arsenide wafers*) are used as the substrate. *Photolithography* is used to mark different areas of the substrate to be *doped* or to have *polysilicon*, *insulators* or *metal* (typically *aluminium*) tracks deposited on them.

Let's observe the crystals, i remember touching on this a while ago...

If we want semi conductors, why not have full on conductors we can set to on or off or half way? obviously, the most effective way to control the current is with a value on the amount of energy going through it, yes? now, i want to suggest just using semi conductors like the freely available silicon to power the machine, by jumping the voltage up. if the crystals are made out of either of these, we can still control the instructions generated by them though the amount of power sent through them, of course.

Alternatively, we could do away with circuits! instead, we could use a 'cylinder' that uses non conductors to block the flow of power, yes?

Electronics basics.

Everything you use that has a circuit is electronic - anything that uses electricity. if you are an engineer, you will understand, if you are in I.T. you will understand, if you are in science you will understand and if you are in psychology you will also understand. these fields all observe the same truths under different names, but let's hear my definition first?

Electronics is there to operate things that we want to do something for us. if it is a remote control, it will be an electronic device, and, will use a 'mechanism' to affect the 'bonds' of the 'brain.'

See how easy it is? think of spider webs, and, snake on your cell phone. if you were to conduct the signal in such a manner as to be a spider waltzing up to a trapped fly, or even folding your body to get the most current into the the snake to eat the fruit, you will just be traveling around a 'grid' then applying your will on it.

Photoemissive camera tube.

I was waltzing through the ghettos of wikipedia when i tripped over this, and, offended at first, i thought i would analyze it further, shall we?



Originally Posted

by <http://thesciencedictionary.org/photoemissive-camera-tube/>

*Tube operating on the photoemissive principle, the image falling on its **photocathode**, causing this to emit electrons in proportion to the intensity of the light in the **picture** elements,*

*Science Dictionary: **What is PHOTOEMISSIVE CAMERA TUBE?**
definition of PHOTOEMISSIVE CAMERA TUBE (Science Dictionary)*

It seems that we have a image capturing device, as you can tell from the word photo. if you want to catch better photos than this, well, actually let's first analyze this, and see where we can improve?

This device is made out of a device that actually captures photons that use electrons as mass, or is it quarks? who can remember? i think that it must have mass to move, as things without mass have no momentum, yes? can you throw an atom of oxygen? can you throw a molecule? see? a molecule has mass, so it can move, but a element of oxygen is too light to move as well as the molecule of let's say coffee or blood, and therefore, something without mass cannot move, yes?

So, this photo thing captures the electrons, which are activated by the photons, as the heat from the photons excites the electrons, or is it vice versa, and then they 'glow.' this is like throwing napalm onto a tiles floor, where the area will ignite, but nothing else. this is why you see very little in a cave, because you will see something, as the photons keep going until they are out of positive spin things to give them energy. in fact, there is no total darkness in the universe as radiation will penetrate even dark matter, okay?

Now, this thing captures all the 'excited' things, as they are at the time, and makes a print of how it 'looked.' all this was done while it was excited, and, now it excites and colors the 'paper' it is on by the same method as the floor tiles were on fire. so, it is like drawing on a piece of paper, and, the crayons are leaving behind some chalky stuff, but, they are already 'excited' and just leave a little bit of crayon on it.

So, if that piece of chalk can get activated, then so can a highlighter, yes? if the highlighter was made of ink, then we can 'spray' it anywhere.

But, that is not what we were talking about, sorry for the diversion. if the photons, which have positive spin, feed the electrons that have negative spin, they exist together and travel. now, the photon is just there to balance the electron, as, the electron will, you know how lightning works? well the electricity is what hits, and the photon is carrying it. then, the electrons are obviously the unstable things we have talked about trying to earth or stabilize themselves, and would rather not.

Now, if the paper gets excited by 'lightning,' and it is fuel for fires, like an unstable electron is looking for, then it

will burn the paper a little bit in a wide variety of colors.

How do we make it better?

We need to use other 'earth' or 'fuel' based parts in the mechanisms to conduct the camera better. this could be like a battery that you place inside the camera to take the impression or picture. if you were to use ozone, you could conduct great amounts of electricity from place to place, and, if it were O4 it would be even better at conducting, yes?

Photodiodes.

This would be where the typical computer parts come into play with the visuals of the 'thing.' how will it work? how will we make it better?



Originally Posted by <http://en.wikipedia.org/wiki/Photodiode>

A photodiode is a semiconductor device that converts *light* into *current*. The current is generated when photons are absorbed in the photodiode. A small amount of current is also produced when no light is present. Photodiodes may contain *optical filters*, built-in lenses, and may have large or small surface areas. Photodiodes usually have a slower response time as its surface area increases. The common, traditional *solar cell* used to generate electric *solar power* is a large area photodiode.

Photodiodes are similar to regular [semiconductor diodes](#) except that they may be either exposed (to detect *vacuum UV* or *X-rays*) or packaged with a window or *optical fiber* connection to allow light to reach the sensitive part of the device. Many diodes designed for use specifically as a photodiode use a *PIN junction* rather than a *p-n junction*, to increase the speed of response. A photodiode is designed to operate in *reverse bias*.^[1]

Okay, so, this is where electricity is used to make pictures, by allowing light to come onto your monitor through a 'mechanism.' if you want to make a picture, you need light to go into your eyes and activate the

nerves in your eyes.

So, to get the computer to put up a picture, we need to use heat to warm the parts so they work, then they will make light to come through the pixels in the computer monitor. then, they need to program a motherboard with a device where there are different levels of light like a radio has volume, yes?

Now, to make it better, we would have to use less energy and get a clearer picture. for this, we need to use electricity to activate the semiconductors. this means they will can be set to off when there is no current flowing, and on when there needs to be a current. then, we can activate the pixels at different degrees to get certain colors. but, to make the picture 'better,' we should use analogue parts as they show the direct image on the monitor, as, there will be no problems then, as they do not show stupid little lights, but, instead, a photograph that moves on the monitor, like graphic programming. that is a direct input output system that will be better, yes?

Photo transistors.

This is like a normal transistor, except that it works with light too. if you were to observe that light is a form of heat, and gives off radiation, and, that it is the opposite of electrons, or at least activates them, then you will find this easy to understand if you know a bit about physics.

But, let's recap? if you were to observe that transistors are there to carry charges over from one place to another, they are like a rocket launcher and compass found in one, yes? or, think of your circuit - if you were to have a square of metal or silicone, well, the electricity will travel around the whole thing and electrify it, but, it won't have any 'direction' or 'goals.' so, if we give the current goals, it will understand and do as told.

So, if we were to place a lot of current into a circuit - you know, those squares of 'metal' you have seen, which carry the current like an aerial carries a signal from the air into your house? - then we will find that it just circulates and moves from one place to another like a fire, except that it is not satisfying it's need to 'stabilize' itself by burning the metal, so stays unstable, because, electrons are unstable because they have a negative spin and charge, making them, for lack of a better word, unstable, yes?

Now, to get the current from one end to the other, and not just stimulate all the parts at once, we have transistors and resistors. these resistors will stop current that the transistors send to it when it is enough, or, has done what the mechanism is supposed to do. the mechanism of course is supposed to go on or off, as typical binary says it is supposed to. the transistors will choose a way for the current to go, and the resistors will stop it once it is done.

If we want to make a better transistor and resistor setup, we need only look to taking away resistors and making only transistors that send all current that we are not using to the center of the circuit, being the solitary resistor. this will make it more like a loose tiger that gets sent roaming around the jungle, and knows it's bed is in the middle, yes?

Then, we could make the resistor into a transistor that sends the current back to the battery, which means we use little or no power! make sense?

How to mass produce lots of chips with simple equipment.

If you were to want to manufacture computers out of your driveway, or garage, then you need a few tools. first, you need to get your hands on a pane of [1] glass, a [2] calculator, a bit of [3] 'mesh' for the monitor, a [4] pot with some sand and wood and matches for the chips, and a [5] few reject plastic parts for the back of the monitor, the case, and the keyboard and sound and a [6] magnifying glass.

Now, you need to make a mold for the chips. this can be done with a magnifying glass and a good understanding of circuits, from a booklet that is cheap. basically, you want to connect the output to the input, and that is about all you need to do.

So, you need to place your pictures or photos into a 'slide show' and connect them so that all sorts of colors come up when you press down on the key board. then, you can get your hands on a few wires and connect them around without the chips so that they carry current to and from the operations to output and input. this is very basic, yes?

Then, you need to connect the speakers up to the monitor, so that the monitor is the center of the computer. then, you need to make it so when some pictures come up, then some other sounds are made from your 'recordings.' instead of using tiny chips, we are using wires which can change their 'power level.' this frequency will dictate the whole operations of the computer, i think it resembles a Macintosh, yes? the wire mesh needs to go behind the pictures so that they will stand out, like a blue screen on television.

How to read faces, voices and timing.

Whenever you meet someone new, you will judge them based on the people you have already met. this is natural, and, comes from our birth like object recognition or 'thing identifier.' you will at first learn that that hairy one is full of fingers, for example, or that softer spoken one is full of toys, yes? then you will compare people to them, and you will start judging.

Then, you will start to think of the new people you meet, and then you will form a image of humanity. from there on, you will slowly start to think of yourself fitting into your image of humanity, in some way shape or form, and then you will either be happy with it or not, but you will no doubt challenge

yourself to change it at some point, trying new things, maybe? remember the more it means to you, the more you want it to change.

But, this is about faces, first. if you were to look at someone in their face, you will feel a lot of things. you will think, man, that guy is wrinkled, he must be an ass, or, hey, that woman is short, she must be cute, yes?

Then, you will form an opinion about them, how to greet them, how to make them like you, or not. then you might try to find a way out of there, maybe they do not like you either or something? this all comes down to facial angles, if you ask me. for a westerner, it comes down to cartoons and for a third world person it comes down to something else, i am not sure what yet, but we will get there.

Now, if you were to judge someone based on their face, then you would have to think of where they stand first, as, you will, depending on where you think you stand to them, identify where they stand first. this is like putting on an accent when you speak to other peoples, for example, or being rude if you think the waiter is lacking some sort of attitude.

This all comes down to what you see! this all comes down to what you hear! this also comes down to where you are, what the time is, and stuff like that. if you were to want to find your place in society, then your best bet is to identify where others that look, stand, sound, activity cycle, and so forth, stands. this is what they 'see.' there are ways to change it, like wearing clothes, for example.

Reading foreheads.

Basically, the way i see it looking at pictures of famous people, the quieter stars will have foreheads that go outwards at an angle to the top. this is because they look in the mirror and see a pair of horns! that is something that people of the west find with cartoons anyways, that they have a pair of horns like the devil, and will try not to bring attention to themselves.

This is also a sign of good looks. this coupled with the 'horny part' will mean that they will feel confident yet quite, charging down people with subtlety and grace, a gentle man if you will. maybe they will not like the horns and strive to be true to what they want to be?

On the other hand, people with foreheads that go straight up will try to be funny, mocking those with outwards or inwards facing foreheads.

Lastly, people with inverted foreheads will be unhappier and will try to prove themselves, because they have a 'pointed exterior.' these people will try to be the best they can be. for some reason, these people are less popular, it seems, as they have no 'horns' nor normal things in their 'faces.' i find this is because they see themselves as equal, yet have the foreheads of a roof and stuff, making them look clever, maybe?

Reading cheekbones.

I find that cheekbones come right under the eyes, so will have an effect on how people react to us. i am starting with the biggest parts of the face, because they have the biggest visual impact on us as an observer. i guess there are high, wide and low cheekbones, yes? let's deal with that first?

So, the cheekbones of high types, what do these mean? if the person has high cheekbones, they will, as they speak, guide you into their eyes, yes? this is because their cheekbones are close to their eyes, so, if you don't understand something, you will move to their cheekbones and then immediately back to their eyes, as they are so close together, so you will basically believe everything they say, or follow what they are saying. maybe a teacher would be a good example of someone with high cheekbones?

If they are wide, you will maybe, when listening to them, look around the room or wherever you are, making lying easier for them, or disguising your message with something a little bit of a fib, yes? this would mean, of course, these would make terrible teachers, but good politicians, of course.

If the cheekbones are low lying, then they will make the person look to the mouth of the person as they are speaking, or, lower their line of vision into a sense of "Why am i looking down?" or submission, yes? this would be like a preacher, i suppose, or a police officer, as, when we look down it is usually out of looking for a foundation for what they are saying, or thinking we have found foundations in what they are saying, of course.

The brow.

The next biggest effecting thing in the face is the brows, as we look people in the eyes when we talk to them, maybe this is the most important thing, yes? these with the cheekbones will guide us into their eyes or out of their eyes, of course.

If the brow is wide, it will send our eyes in 'prey mode,' as the eyes of a predator, in nature, are focused and in the front of the face. if their brows are wide, then it will make us more aware of things around us, like a military sergeant speaking to the troops, or a good team builder, making us worry about those around us, of course.

If the brow is focused, then we will find ourselves looking into the eyes of the person, like a good teacher making us focus on them and drawing attention to themselves rather than things around us.

This is because the brows are ways out of the eyes, and the further out you look along the brows, which attract our attention when we look into the eyes of those we are speaking to, you will either not escape them, or you will. depending on other factors, you may decide to pay attention to them or not.

Voices.

This comes down to speed the person speaks at, tones used, and accent. basically, the faster someone speaks the more they have to say, the deeper the tones used, the more serious they are - obviously - and the accent dictates who they think they are speaking to.

So, if the speed someone speaks at is slow, then they are being careful, of course. if they speak as if they cannot stop, maybe they are attacking someone, something, or defending themselves? maybe they are trying to make money? maybe they are short of time? maybe they are sick of something?

If the tones used are high, they are trying to trigger a reaction from you out of excitement, as, every time someone speaks they are trying to get a reaction. this is like speaking to the dark when you think

there is an intruder inside your house, you want a reaction, no?

Now, if the accent used is used to try to relate to you, you know the person is your friend, and if it is used to alienate you, know they are not trying to win you over, or, trying to make you submit, of course.

Timing.

When we go through our lives, we do things, or, are affected by things. sometimes these things will make us feel high or low or excited or disappointed. it is our guts interpreting the world around us, and the events taking place.

To plan your day, the world has been divided up into units of twelve and sixty. this is the way our energies are affected by the horoscopes. basically, the most testosterone is experienced in the first hour of the day, being from twelve to one am, or, pm. this is the age of the rat to the Chinese understanding, and Pisces to the Greeks. there are doubtless others that fall into this arrangement, and, they all affect our lives.

If you read what that sign is about, it will show you, in order of which i am not sure, how the world works, and when the best time to have your hair done, or, go shopping will be. hell, it will show when the best times for students to take their tests will be too!

In all, it relates to G.M.T. where the twelve rests. finding the relations between these things will help us uncover the best times to do things, i reckon.

Another thing about time, going right is resisting time, going left is going with the time, and staying still is like allowing time to flow. this is because the sun rises in the east, or, towards the right.

And, if you look at a map, it is tailored to be set to go north. if you face north, the directions make sense, any other direction and then your west and east change a little. so, if you look north, on your left is west, yes?

Foreheads part two.

I suppose if the forehead is 'big' it inclines people to think of them as being clever or deep, and, of course, shy, yes? we always reflect how others treat us, so, this makes sense, yes? of course with a big forehead, it tends to imply that the person is sought for to solve personal problems, so, it is logical to assert or guess that people with big foreheads are good listeners, or used to listening.

Maybe the opposite is true for people with small foreheads? i suppose so, it is only logical to assume or guess that people with small foreheads are thought of as stupid or bad listeners.

how about wide foreheads? if a forehead is wide, it implies or supposedly means that the person has a big face, so, would also mean that they are easier to focus on, like a dart board would be easier to hit. it also might mean that they look stupid, so are treated as if they were stupid by peers and role models, and, therefore, they will be frustrated and wanting to prove themselves, yes?

Cheekbones part two.

For the cheeks, we often kiss people on the cheek, or, our faces might get fat with a lot of wobble on the way we speak, of course.

If we observe the cheeks of people that are wide, they will look more like a sissy, as their cheeks will be more kissable. this would mean that people treat them with more 'concern' and 'praise' as if they had a baby face, yes? then, they will become children, needing to be sought after a lot.

Then, how about if the cheeks are narrow? this would make them look more 'distinguished,' as they will look more hard to kiss, they will be a 'mission' to get the attention of, as, they will be kissed 'less easily.' this means they will become aloof maybe?

Now, for the fatties! if someone has a fat face, they will look too easy to kiss, and, will be 'sidelined,' and ignored. then, they will become more driven to succeed and easier to approach, as they will be open minded and stuff. they will be more driven to succeed when they are 'shunned,' as, they will be trying to find a way to get people's attention. these make very good employees!

More on voices, pitch and pace.

When we listen to people's voices, there are two main categories for them, being how high or low they are, and how fast they are.

Now, the tone of the voice will reveal how the person is feeling. if it is low, it will mean they, as we have discussed, are trying to be taken seriously. of course, when someone screams they do so in a high pitch meaning they still want to be heard. it is that a low pitch proclaims demands, and a high pitch is about claiming innocence, so, if someone is lying it will be in a higher pitch than normal. if you were to examine somebody, you would have to see how they normally speak before finding the pitch they are using, and, if they were to usually speak in a high pitch it would be because they are used to hiding things, yes?

The speed or pace that someone speaks at will be faster if they are used to being told no. this is because they need to get their message across before there is a resounding no once more. this is typical for 'servants' that are not treated well. of course, if English is not your first language, then of course you will speak slower and deeper, yes?

If you were to mix eye contact with tones, you would find that there is even more pleas of innocence or demands. if the person is focused on the listener, then it is more of a demand.

Body language.

Very simply, the most obvious sort of body language is that we reach to the driver's side in our western society. many city dwellers will look to the side of them that the driver sits on when we are looking for help, and when we think we are helping as adults, we will look to the passenger side. this is because we are used to seeing our parents there, or our kids.

Then, we also look right when we are speaking, and look left when we are adjusting or listening. this is true for right handed people at least, because when we use our right hands, we are usually writing or using our tools or the kitchen utensils or whatever.

Now, if we are using our left hand, it could also mean we are taking something in, as with eating using our left hands for shoving the food into our mouths. this is true for all people that use silverware, but, for 'savages,' they just put the samp into their mouths with their used hands.

When we look behind us, we are looking to help someone, as is in taxis and passenger cars. when we look through the person to the next person, we are looking to skip past that person onto someone we think more of to be around.

When we look down, we are unsure, when we look up, we are sure yet frustrated. looking down is also a sign of fear, as we check out footing, so to speak.

Height.

Some people have said that being tall is a sign of evolution. yet, when we are young, lack of sleep can stunt our growth, so that may also play into it. i know the eastern people are all quite short, so is it that these people that are so good at maths are not 'evolved?'

If you were to look at someone, then you get a visual impression of them. if they are tall, you think that is good, they seem to be less worried about being short. if they are thin, they are less worried about being fat. if they are attractive, then they are less worried about that too. this eats away at stress, as being short, fat and ugly will stress you out socially. this goes to show that these people are probably not very nice as people treat them with contempt, yes?

To be in the middle ground of height and 'dimensions' is where there is lot of naturalness. if someone is normal height, they will be more concerned with things as if they were neutral, yes?

To define skin tones, well, the more dark someone is the more time they spend in the sun. this also denotes basic health, as vitamin d is found in the sun, as well as fresh air. then there is the regional stuff, like being in a desert or ice caps where there is a lot of heat or cold. if someone has a pale complexion or skin tone, then they will not be as strong as one with a darker one on average, unless there are visible muscles on them.

So, who is more intelligent? the way i see it, intelligence is founded on one's trying to learn things, leading to a natural exercise for the brain. retreating to yourself and burying yourself in books, for example, would lead to more intelligence. of course we spend our time doing something, and we develop from there, as long as we try new things. if you were to do the same things over and over, there is no guarantee that we will get better at them, but there is always the chance, depending on what we

are trying to do.

Rebellious faces.

It doesn't take long in life to recognize people that are a threat to the powers that be, and take them into our hearts. there are two kinds of leaders, ones with triangle foreheads, and ones that have faces that resemble that of an animal we recognize - one that breaks the rules.

Since childhood we will want to rebel, as, there is so much resources, and so much people, we will want as much resources for ourselves as possible. 'emotional comfort' is also a resource.

So, who are the happy people? i find that those with dark skin tend to be happier, and those with narrow brows are also inclined to have more people listen to them.

If we were to check 'shoulder width,' i find those with narrow shoulders tend to be more popular, as, they will fit into the gaze of others and themselves more easily.

It is also the less attractive people that will be more intelligent, as, they will try to find something else to do other than chase people that don't want them to sexually, naturally.

If we were to look at people's ears, we will find that people with small ears do not listen as much as people with big ears, because when we see our ears, we will come to accept them and everything they mean to us, so as to stop fighting oneself. if we fight our forms, we will just sit alone all day.

Jaw bones.

People are considered stronger if they have wide jaw bones i find, because it looks like musculature or something similar. it is like when someone likes to be around tall people for comfort, size means comfort for us, as when we were kids they will be our parents, yes?

The narrow jaws are ones we like to kiss, as it looks hard to kiss them. wide jaws are also thought of nice to kiss because we think of the supposed strength of the kiss.

We like to be around people with big features and that are large in size, and they will get used to this, shrugging other responsibilities for the grandeur of looking after people and gaining popularity. so, tall people often shrug work and talk to others as they enjoy being ones that make people feel safe, not only tall people, but big people too. this means that 'big people' are not very serious about responsibility, yet will be good at looking after others - a parent without a job - a mother.

More on voices.

Where the person places the emphasis is where the person thinks the emphasis will be to you or them. they are likely to accompany this with a gesture from their hands or feet too. if the speaker was to emphasize something, they are drawing attention to it. this is because they think it is relevant or not relevant.

So, if they were to lower their tone with the emphasis, then they are speaking as if it were important, and if they heighten their tone with emphasis, it is because they think this is stupid.

Word usage and choices.

We can tell a lot about a person by the way they structure their sentences grammatically or with what words they use. if they use a lot of big words, they are trying to underline the seriousness of the situation, and a lot of small words will be used when they find something trivial, i suppose?

So, if we were to observe the speeches of non English first language speaking people, they will tend to be full of big words if they are leaders, and full of bad word choices if they are not taking it seriously. this is why african and asian and south american leaders always use such big words - they also think it is a form of brainwashing, as, the people will associate these words with them, and this leads to a supposed 'better image' of the leaders of the people.

So, if someone uses verbs a lot, it is actually because they want action, nouns will lead to them wanting to say who they are speaking to and who is speaking and adjectives will show the description of things, so, will be when the speaker is trying to point out a difference between two or more things.

Demeanor.

What we show the world, it is said, is always the opposite of how we really feel. i was not so sure about this, as, we often show the world how we feel when we cry, when we cringe, when we blush, and so forth.

For this reason, we will always try to hide what we feel. this is because any sign of weakness is found to be exploited over us, even by our friends and family.

But, it is not always the case. if we were to be intimate with someone, then we would show them how we truly feel. this is essential that we vent every now and again, so when we get stressed or explode, we will be our true selves - when we lose control.

In our childhoods, we often find the correct most comfortable way to get along with others. this leads to our backbone of emotions too, as we are often disappointed that we have to act in a certain way to feel we are accepted by society. i find this true especially in little kids, as, they will copy adults as a form of inspiration. this means, of course, the older we get, the less we copy people that are older than us, as, they will often be dead!

So, if we were to be ourselves, we will feel happier, yes? this leads to some of us just saying no to trying to fit in because it makes us too unhappy, and nobody can live like that, can they?

Accents lead to...

In the whole world, we all have accents. these we pick up from the society we live in, and, therefore, we find the same types of words used as by our society.

If it were that there was an accent we develop when we speak, it is not because we are copying people, it is rather because we are using the same sentence structure as them, leading to the same 'break points' in sentences. i call spaces and pauses between words, or, the sounds we make between words, 'break points.'

Then, we also get used to speaking to certain people all the time. this is where we will try to, if it is a group of girls, for example, talk about people's names, the same names or nouns that they use, so, accents are also cliquey, you could say.

Accents also develop from the media. if we expose ourselves to watching soccer from Spain, for example, we will hear a lot of pauses when people are speaking, meaning that we will also hesitate when we are enjoying something, just to make sure we are enjoying it, you could say, yes?

So, if we were to watch horse racing, when we are excited, we will speak a little faster, so with baseball and basketball, or all American sports, as the ball is changing possession the whole time. if we were to listen to the news a lot, we will be spending time with ideas and develop a better intelligence, as adults do. so, if you were to watch a lot of fantasy, you will have a better imagination - something crucial to new developments and progress, yes?

Now, to listen for what kind of person you are hearing, you must try to listen to where they breathe to talk. it will be right before or right after the points they want to dwell on, yes?

Avoiding words.

It is safe to say, if people like and use certain words, they will also avoid certain words. this is like a person with a big nose avoiding using the words big and nose, of course.

I myself avoid using big words as i believe that non English first language speakers could find it easier to understand, as well as kids. [I also don't know what half of them really mean, mind you.]

So, if someone avoids using the word steal, then it is obvious they fear being stolen from, or being called or identified as a thief.

There are a lot of common words, identifying which ones are replaced with adverbs and pronouns and so forth. i know i seldom say he or she, as i believe that these writings of mine should be neutral towards gender.

Now, someone that does not speak, instead shaking or nodding their heads, certainly has something to hide. figuring out what it is can be found by a simple conversation trying to get them to say those words.

A good way to find a thief out, so to speak, is to speak to them about thievery, like "hey, that obama stole his daughters heart this valentines day!" and looking for a reaction. generally, if the reaction is strong, then it denotes a out right refusal to accept that their stuff will be stolen, and a subtle rejection will show that they are actually hiding something, yes?

... simply listening to where they use big words instead of small

words will show where the deceit lies, yes? this could be a personal problem or shortcoming of theirs, so, you can learn a lot about people the way they speak, of course.

Finance basics.

I have never done accounting, so i have decided to try to found my own principles in it.

The way i see it, you [1] need one column for the name of the 'thing,' [2] one column for the date of the transaction, [3] one column for money in or credits, [4] one column for debits or money out and [5] one for totals including taxation, interest and amounts or quantity.

After a quick look at wikipedia, i found nothing of use.

I have decided that all you need is these five columns. if you were to use the ledger as a landscape, then it would be easier, so, maybe using those art books, or, even a3 books would be better for this.

Every time you were to sell something, you write it into your date, name, credit amount and total for the quantity and taxation, or, for bulk sales, all in one.

Every time you pay people, you write their name, and the amounts, as in the previous section, just under debits instead of credits, same for selling things.

Now, more about the layout would be to have an index at the front where you abbreviate the items into codes like for engineering. this will mean that you will have [a1] for polyester fittings, [a2] for seat belts, and so forth. keeping them so that they refer to things in alphanumerical order, like, [a1] for aardvark, [a2] for Mr Abrahams, and [b1] for batteries?

Of course, we could begin writing accounts in shorthand? we could write, following from the index, [a1] [space] credit 9.99 total 27.97 ; [semi-colon] next entry. or, we could use every line as a new entry?

The most important thing is deciding what is money coming in, how much is coming in, and how much is taxed, how much is interest and how much is kept to one side as a precautionary measure, or, surety. we could give all these things codes as well in the index, or, have a separate 'booklet' for the index.

With our 'short hand,' this will be easy to keep track of. and, with the dropping of credit and debit, and the use of plus and minus,

we could make it even shorter!

Then, we could also try to write down how many shares we own in another business? this could be written as [code for business], [amount of business owned], [share yield] and [total in].

If we were to want to get rid of 'fraud' and corruption with an audit, we could check the unit price, which we have, and find the totals quickly. there is no way to cheat my system!

Taxes go up as the amounts go up, so, it is a good idea to spend any surplus cash on investments, or to expand. if you were to have a million dollars in your companies account, you might be very much better off having that money tied up with other businesses, as then you will pay less tax!

So, as for the one million dollars, this might go up to about seventy percent tax, meaning you lose seventy percent on your capital gains. if, you had it tied up in other companies instead of one account, you gain the money from those companies doing business instead of losing that 'crucial cash' on capital gains tax.

Now, if you had a lot of bad experiences with this, say you do not trust the market, then expand! the more you expand the more money you will be making, as demands are high today.

Here is an example;

Mr Reeds has a business that makes two hundred thousand [200000.00] dollars a month. he has saved, in his business account, a total of [450000.00] dollars. every month he gets half a percent of that back in interest. if he were to spend [50000.00] on a new business, like a shoe store or something, something that satisfies a need in a various place, or is at present quite popular on paper, then he could make a minimum of about five thousand dollars [5000.00] a month, and that is about five percent of how much the business costs. so, having [400000.00]

left in the bank, he would make [2000.00] a month from the total, and more than double that from an inkling of the amounts spent on the shoe store. but, then he will be taxed capital gains of at least say fifty percent, leaving him with [1000.00] from the lump sum!

It is common for the business to make about eight to ten percent at least from it's cost price for a few months at least. then, if it fails, simply liquidate it and make a killing off the assets, of course.

How does liquidation work?

If you were to have a old warehouse, and your business is in debt for [100000.00] rands, then you could write it off, and keep the warehouse, which will be worth like five hundred thousand [500000.00] rands. this is like cheating, yes, but you get the difference, and the bank has to write it off as bad debt. hell, you could fix the warehouse up and sell it like those people that fix up houses for resale!

So, as you can see, it is better to have a second business that is worth a fifth of your cash than to have all your cash in the banks. hell, they all got assets, don't they?